Listing of the Claims

This listing of claims supersedes all previous listings of claims.

1. (Currently Amended) A method for collecting or detecting a biological particle from air, the method comprising the steps of:

[[~~1~~]]a) providing a sample chamber and a first and a second electrode, the first and the second electrode and the sample chamber being so positioned that at least a part of the sample chamber is between the first and the second electrode, and the first and a second electrode is separated by a distance being ~~at the most~~ less than 20 mm, said sample chamber having a volume of at most 500 µL,

[[~~2~~]]b) providing ~~an~~a gaseous sample in the sample chamber,

[[~~3~~]]c) applying ~~an~~a first potential to the first electrode and a second potential to the second electrode, thus resulting in a potential difference and an electric field between the first and second electrode, to assist electrostatic collection, in the sample chamber, of a biological particle in the gaseous sample,

[[~~4~~]]d) contacting the biological particle collected in the sample chamber with a first liquid, and

[[~~5~~]]e) subjecting the collected biological particle to further analysis.

2. (Previously Presented) The method according to claim 1, wherein the first potential of the first electrode and the second potential of the second electrode, and thus the electric field between the first and the second electrode, are selected so as to yield a capture efficiency of at least 50% for biological particles having an effective length in the interval from 1-10 micrometer.

3. (Previously Presented) The method according to claim 1, wherein the first or the second electrodes are from the group of: a sheet, a plate, a disc, a wire, a rod, a point; or any combination thereof.

4. (Previously Presented) The method according to claim 1, wherein the first and a second electrode are separated by a distance being at the most 10 mm.

5. (Currently Amended) The method according to claim 1, wherein at least a part of the gaseous sample in the sample chamber is positioned or flows between the first and the second electrode.

6. (Previously Presented) The method according to claim 1, wherein the biological particle comprises a component selected from the group consisting of a microorganism, a virus, a plant spore, and a fragment thereof.

7. (Currently Amended) The method according to claim 6, wherein the microorganism is a bacterial spore.

8. (Previously Presented) The method according to claim 7, wherein the bacterial spore is formed by a bacterium selected from the genus Bacillus or the genus Clostridium.

9. (Previously Presented) The method according to claim 8, wherein the bacterial spore is a spore formed by Bacillus anthracis.

10. (Currently Amended) A chip for collection of biological particles, the chip ~~comprising a sample chamber~~ comprising:

a sample chamber with a first opening in fluid connection with the surrounding air and a second opening to form a fluid connection with a device, the sample chamber comprising ~~an~~ a gaseous sample,

a first and a second electrode positioned at opposing sides of the sample chamber, the first and a second electrode is separated by a distance of at the most 20 mm, and

a biological particle attached to the first or the second electrode.

11. (Previously Presented) The chip according to claim 10, wherein the electric field magnitude is in the range of 50-2000 V/mm.

12. (Currently Amended) A device for collecting biological particles in a chip, the device comprising:

a chip site where the chip is to be located in order to be functionally associated with the device,

an electrical interface between the device and the chip for applying an electrostatic field between the electrodes of the sample chamber,

a programmable unit comprising ~~a~~ software that effects that the device performs one or more actions selected from the group consisting of:

applying an electrical field between the first and second electrodes to assist electrostatic capturing, in the sample chamber, of biological particles in the gaseous sample,

contacting collected biological particles in the sample chamber with a first liquid reagent, and

performing further analysis of the collected biological particles by performing a nucleic acid amplification by operating a heating electrode.

13. (Currently Amended) A system for collecting biological particles, the system comprising a chip according to claim 10 ~~functionally associated with a device according to claim 12.~~

14. (New) A system for collecting biological particles, the system functionally associated with a device according to claim 12.

15. (New) A system for collecting biological particles, the system functionally associated with a device according to claim 12 and the system comprising a chip having:

a sample chamber with a first opening in fluid connection with the surrounding air and a second opening to form a fluid connection with a device, the sample chamber comprising ~~an~~ a gaseous sample,

a first and a second electrode positioned at opposing sides of the sample chamber, the first and a second electrode is separated by a distance of at the most 20 mm, and

a biological particle attached to the first or the second electrode.

16. (New) A system for collecting biological particles, the system comprising a chip according to claim 10 functionally associated with a device comprising:

a chip site where the chip is to be located in order to be functionally associated with the device,

an electrical interface between the device and the chip for applying an electrostatic field between the electrodes of the sample chamber,

a programmable unit comprising software that effects that the device performs one or more actions selected from the group consisting of:

applying an electrical field between the first and second electrodes to assist electrostatic capturing, in the sample chamber, of biological particles in the gaseous sample,

contacting collected biological particles in the sample chamber with a first liquid reagent, and

performing further analysis of the collected biological particles by performing a nucleic acid amplification by operating a heating electrode.